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(54) Title: NOVEL METHOD FOR THE PRODUCTION OF ANTI-HUMAN ANTIGEN RECEPTORS AND USES THEREOF (57) Abstract Described is a method for the production of an anti-human antigen receptor that is low or not immunogenic in humans comprising the steps of selecting a combination of functionally rearranged VH and VL immunoglobulin chains wherein at least said VH chain is derived from essentially unprimed mature human B-lymphocytes or from essentially anergic human B cells and said VL chain is derived from a naturally occurring human B cell repertoire, said chains being expressed from a recombinant vector and using an in vitro display system for binding to a human antigen. Furthermore, receptors that are low or not immunogenic in humans and directed to human antigens are provided, said receptors being obtainable by the method of the invention. Said receptors are preferably antibodies or fragments thereof or immunoconjugates comprising the VH/VL chains of said antibody. In particular, receptors are described directed to human tumor antigens, preferably to the human tumor antigen 17-1A, also known as EpCAM, EGP or GA 733-2. Finally, kits useful for carrying out the method of the invention and pharmaceutical compositions comprising the aforementioned receptors are provided.		